

Iowa Department of Natural Resources

Draft Title V Operating Permit Fact Sheet

This document has been prepared to fulfill the public participation requirements of 40 CFR Part 70 and 567 Iowa Administrative Code (IAC) 22.107(6). 40 CFR Part 70 contains operating permit regulations pursuant to Title V of the Clean Air Act.

The Iowa Department of Natural Resources (IDNR) finds that:

1. John Deere Waterloo Works-Tractor & Cab Assembly Operations, located at 3500 E. Donald Street, Waterloo, IA 50703 has applied to renew their Title V Operating Permit. The designated responsible official of this facility is Stephen Stanic.
2. John Deere Waterloo Works-Tractor & Cab Assembly Operations is a manufacturer of farm machinery and equipment. This facility consists of 23 emission units with potential emissions of:

| Pollutant | Abbreviation | Potential Emissions (Tons per Year) |
|---|---------------------|--|
| Particulate Matter ($\leq 2.5 \mu\text{m}$) | PM _{2.5} | 9.77 |
| Particulate Matter ($\leq 10 \mu\text{m}$) | PM ₁₀ | 9.77 |
| Particulate Matter | PM | 9.77 |
| Sulfur Dioxide | SO ₂ | 0.56 |
| Nitrogen Oxides | NO _x | 74.32 |
| Volatile Organic Compounds | VOC | 107.75 |
| Carbon Monoxide | CO | 57.73 |
| Lead | Lead | 0.00 |
| Hazardous Air Pollutants ⁽¹⁾ | HAP | 10.31 |

⁽¹⁾ May include the following: acetaldehyde, ethylbenzene, formaldehyde, glycol ethers, cumene, benzene, xylene, and n-hexane.

3. John Deere Waterloo Works-Tractor & Cab Assembly Operations submitted a Title V Operating Permit renewal application on June 30, 2020. Based on the information provided in these documents, IDNR has made an initial determination that the facility meets all the applicable criteria for the issuance of an operating permit specified in 567 IAC 22.107.
4. IDNR has complied with the procedures set forth in 567 IAC 22.107, including those regarding public notice, opportunity for public hearing, and notification of EPA and surrounding state and local air pollution programs.

IDNR procedures for reaching a final decision on the draft permit:

1. The public comment period for the draft permit will run from June 2, 2022 through July 2, 2022. The beginning date of this public comment period also serves as the beginning of the U.S. Environmental Protection Agency's (EPA) 45-day review period, provided the EPA does not seek a separate review period. During this time, anyone may submit written comments on the permit. Mail signed comments to Derek Wedemeier at the IDNR address shown below.
2. Written requests for a public hearing concerning the permit may also be submitted during the comment period. Any hearing request must state the person's interest in the subject matter, and the nature of the issues proposed to be raised at the hearing. IDNR will hold a public hearing upon finding, on the basis of requests, a significant degree of relevant public interest in a draft permit. Mail hearing requests to Derek Wedemeier at the IDNR address shown below.
3. IDNR will keep a record of the issues raised during the public participation process, and will prepare written responses to all comments received. The comments and responses will be compiled into a responsiveness summary document. After the close of the public comment period, IDNR will make a final decision on the renewal application. The responsiveness summary and the final permit will be available to the public upon request.

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IDNR concludes that:

1. IDNR has authority under 455B.133 Code of Iowa to promulgate rules contained in 567 IAC Chapters 20-35, including, but not limited to, rules containing emission limits, providing for compliance schedules, compliance determination methods and issuance of permits.
2. IDNR has the authority to issue operating permits for air contaminant sources and to include conditions in such permits under 455B.134 Code of Iowa.
3. The emission limits included in this permit are authorized by 455B.133 Code of Iowa and 567 IAC Chapters 20-35.
4. IDNR is required to comply with 567 IAC Chapter 22 in conjunction with issuing a Title V Operating Permit.
5. The issuance of this permit does not preclude the IDNR from pursuing enforcement action for any violation.

Title V Application Review Notes R3

| | |
|------------|--|
| Applicant: | John Deere Waterloo Works - Tractor & Cab Assembly Operations |
| SIC Code: | 3523 |
| City: | Waterloo |
| County: | Black Hawk, Field Office 1 |
| EIQ#: | 92-5614 |
| Facility#: | 07-01-085 |
| Permit #: | 02-TV-024R3 |
| Reviewer: | Derek Wedemeier |
| Date: | **DATE** |

Facility Identification

| | |
|-----------------------|--|
| Facility Name: | John Deere Waterloo Works - Tractor & Cab Assembly Operations |
| Facility Location: | 3500 E. Donald Street, Waterloo, IA 50703 |
| Responsible Official: | Stephen Stanic |
| Phone: | 319-292-3944 |

John Deere “Tractor & Cab Assembly Operations” (TCAO) has applied for a Part 70 Title V Permit renewal. TCAO manufactures farm machinery, primarily tractors. The primary emissions are from the paint booths, and natural gas fired boilers. John Deere TCAO is considered a single source with three other John Deere Facilities in Waterloo, IA. As a whole, this single source is considered a major source for HAP and PSD.

Regulatory Status:

- Title V Major Source Status by Pollutant is shown in the following table:

| Pollutant | Major for Title V? |
|------------------|---------------------------------------|
| PM ₁₀ | <input type="checkbox"/> |
| SO ₂ | <input type="checkbox"/> |
| NO _x | <input type="checkbox"/> |
| VOC | <input checked="" type="checkbox"/> |
| CO | <input type="checkbox"/> |
| Lead | <input type="checkbox"/> |
| Total HAPs | <input checked="" type="checkbox"/> * |

*The single source is major for HAPs but this facility by itself is minor.

Program Applicability

PSD: The facility (including the other three John Deere plants) is major for PSD.

Part 61 NESHAP: No

NSPS: One diesel fire pump (EP/EU 6110-01) is required to meet the requirements of 40 CFR 63 Subpart ZZZZ by meeting the requirements of 40 CFR 60, Subpart IIII.

Part 63 NESHAP: Subpart A – General Provisions,

Subpart ZZZZ: *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*. EP/EU: 6020-32, 6030-13, and 6130-04

Subpart DDDDD: *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers and Process Heaters*.

EP/EU: 6060-03, 6130-01, 6130-02, and 6110-02

Subpart MMMM: *National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products*. See comments below for specific emission units.

Acid Rain: No

Stratospheric Ozone: Yes

112(r): No

CAM: None of the emission sources at the facility are subject to CAM.

Emission Estimates:

Potential emissions are listed in the following table:

| Summary of Potential Criteria Emissions | | | | | | | | |
|---|---------------------------|-------------|--------------------------|--------------------------|--------------|-------------|---------------|---------------------|
| PM _{2.5} (tpy) | PM ₁₀ (tpy) | PM (tpy) | SO ₂ (tpy) | NO _x (tpy) | VOC (tpy) | CO (tpy) | Lead (tpy) | Total HAPs (tpy) |
| 9.77 | 9.77 | 9.77 | 0.56 | 74.32 | 107.75 | 57.73 | 0.00 | 10.31 |

| Summary of Actual Criteria Emissions (2021) | | | | | | | | |
|---|---------------------------|-------------|--------------------------|--------------------------|--------------|-------------|---------------|---------------------|
| PM _{2.5} (tpy) | PM ₁₀ (tpy) | PM (tpy) | SO ₂ (tpy) | NO _x (tpy) | VOC (tpy) | CO (tpy) | Lead (tpy) | Total HAPs (tpy) |
| 1.01 | 1.01 | 1.01 | 0.06 | 7.63 | 48.55 | 6.22 | 0.00 | 3.40 |

General Changes and Emission Unit Comments

The following changes have been made to the Title V permit:

1. TV Permit number has been updated to 02-TV-024R3 (pp. 1, 5, 8, 12, & footer).
2. Facility Description and Equipment List updated (p. 5-7).
3. Plant Wide conditions updated to reflect current standards (pp. 8-11).
4. Responsible official updated to Stephen Stanic
5. General Conditions were updated (pp. 47-60).
6. Reference of Material Safety Data Sheets (MSDS) have been changed to Safety Data Sheets (SDS) throughout the permit.
7. Page numbers have been updated.

EP6020-60: Manual Gun Solvent Gun Cleaning

The emission limits section has been updated. There are no applicable emission limits specific to this unit at this time. Statewide standards can be found in the plant-wide conditions at the beginning of the permit.

EP6060-02: Tractor Touch-Up Kitchen

Construction permit 02-A-146-S3 includes PM and Opacity emission standards for a piece of equipment that would be considered a VOC only source. The emission limits will remain in the permit however it should be noted this emission unit will likely not produce these pollutants.

6130-01&02: Large Boilers

No recordkeeping requirements for fuel type used are present for these emission units. The facility noted that these units are only capable of combusting natural gas. A construction permit modification would be needed for these units to start using an alternative fuel.

Added/Removed Units since 02-TV-024R2-M001.

| Request Date | EP | EU | Change |
|--------------|--|--------------------|---|
| 11/30/2018 | 6130-08 6130-09 | 6130-08 6130-09 | Permits 99-A-542-S1 & 99-A-543-S1 rescinded and emission units removed. |
| 11/16/2020 | 6060-04 | 6060-04 | Boiler Cleaver – Brooks Model M4W2000 – Permit 89-A-017-S2 has been rescinded and emission unit has been removed. |
| 2/10/2021 | Remove – Fender Weld Sub, combined into C-Line IAQ | | |
| | Remove – Weld Fug D612, combined into A-B Line IAQ | | |
| | Add – D612 A-Line IAQ capture (insignificant) SUE | | |
| | Add – D612 A-B Line Ambient Capture (insignificant) SUE | | |
| | Add – D612 C-Line IAQ capture (insignificant) SUE | | |
| 4/16/2021 | 6050-02 | 6050-02 | Add – F11 Trumpf Tube Laser (insignificant) |
| 4/26/2022 | Update – Insignificant Activity List: 6040-02 has been renamed to WTL. A-B Line has been replaced with D612 Spot Weld Fugitive Emission. | | |

TCAO determined the following emission points are subject to 40 CFR Part 63, Subpart Mmmm:

| | | |
|---------------|---------------|--|
| EP 6020-47 | EU 6020-47 | Paint Pre-treatment Stage 1 Water Heater Exhaust |
| EP 6020-47W | EU 6020-47W | Paint Pre-treatment Stage 1 Washer Exhaust |
| EP 6020-48 | EU 6020-48 | Paint Pre-treatment Stage 3 Water Heater |
| EP 6020-48W | EU 6020-48W | Paint Pre-treatment Stage 3 Washer Exhaust |
| EP 6020-49 | EU 6020-49 | Pre-treatment Dry-off Oven Burners 1 & 2 |
| EP 6020-50 | EU 6020-50 | Chassis Paint System Oven |
| EP 6020-60 | EU 6020-60 | Manual Gun Solvent Cleaning |
| EP 6020-44 | EU 6020-51 | Chassis Paint Booth Make-up Air—Manual Zone |
| EP 6020-45 | | |
| EP 6020-46 | EU 6020-51 | Chassis Paint Booth Make-up Air—Manual Zone |
| EP 6020-40 | EU 6020-52 | Chassis Paint Booth Make-up Air—Robotic Zone |
| EP 6020-41 | | |
| EP 6020-42 | | |
| EP 6020-43 | | |
| EP 6060-1 | EU 6060-1 | Tractor Touch-Up Paint Booth |
| EP 6060-2 | EU 6060-2 | Tractor Touch-Up Paint Kitchen* |
| EP Fugitive 1 | EU Fugitive 1 | Fugitive Surface Coating Materials Emissions from Mfg. |

*The facility is a single source major for HAP and is subject to Mmmm. Construction permit 02-A-146-S3 lists the facility as a minor source for HAP.

Periodic Monitoring

Periodic Monitoring requirements are in accordance with the Department's Periodic Monitoring Guidance Document. Agency O&M plans are required for the equipment associated with the Paint Booths EU6020-40 and EU6060-01. CAM plans and Testing are not required for any of the emission units at this time based on Periodic Monitoring guidelines. Periodic Monitoring must be evaluated during each permit renewal.